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MORBIDITY AND MORTALITY WEEKLY REPORT

Epidemiologic Notes and Reports

Pneumonic Plague — Arizona, 1992

On August 26, 1992, a 31-year-old male resident of Tucson, Arizona, died of an illness subsequently diagnosed as primary pneumonic plague. This is the 10th case of plague reported in the United States in 1992, the first pneumonic plague case this year, and the first plague fatality reported since 1987 (CDC, unpublished data). This report summarizes the investigation of this case by county, state, and federal public health officials in Arizona and Colorado.

On August 22, the man had onset of abdominal cramps, 2 days after returning home by private automobile from a friend's residence in Chaffee County, Colorado. On August 23, he had onset of fever (103 F [39.6 C]), nausea, vomiting, severe diarrhea, and cough. The next day, he consulted a primary-care physician because of diarrhea and vomiting. On examination, he was febrile (104 F [40 C]) and dehydrated; no abnormal chest sounds were heard, and there was no lymphadenopathy. He was treated for gastroenteritis with intramuscular prochlorperazine and lincomycin and given oral ciprofloxacin to be taken the following day. On August 25, he was hospitalized with cyanosis and septic shock. Chest radiograph revealed a right upper lobar pneumonia. A Gram stain of a sputum sample obtained at hospital admission showed numerous gram-negative rods. Antibiotic therapy with ceftazidime, erythromycin, and one dose each of penicillin and tobramycin was initiated for treatment of overwhelming sepsis and pneumonia. He died 24 hours after admission.

One week postmortem, biochemical tests at the hospital identified as *Yersinia pestis* an organism that had been isolated from sputum. The organism was also identified as *Y. pestis* by fluorescent antibody and bacteriophage tests at the state laboratory; this identification was confirmed by CDC. Antemortem blood and urine samples were culture negative. Postmortem cultures of blood, cerebrospinal fluid, and lung tissue were also negative.

After the patient died, a rapid microbiological testing device used at the hospital identified the organism isolated from sputum as *Y. pseudotuberculosis*. The testing device subsequently was determined not to have been programmed to recognize *Y. pestis*, thus delaying the initial identification of the organism.

Pneumonic Plague — Continued

All persons who had contact with the man after he became ill were considered to be at risk for plague, including two friends, the physician and his staff, one patient in the physician's waiting room, and hospital staff contacts. All contacts were traced and were asymptomatic 8 or more days after exposure. Although no contacts required prophylactic treatment (*1*), two nurses requested and received tetracycline for plague prophylaxis (*2*).

Investigation by Chaffee County public health officials indicated the patient had become infected on August 19 through respiratory exposure to an infected domesticated cat that he had removed from the crawlspace of a house in rural Chaffee County. The cat, reported to have submandibular abscesses and oral lesions consistent with feline plague, died on August 19 before being evaluated by a veterinarian and was cremated without diagnostic studies. A dead chipmunk found in the area where the cat lived was culture-positive for *Y. pestis*. Rodent die-off in a nearby arroyo was also evident.

On September 10–11, the house and rodent burrows within a 100-yard radius of the house were dusted with the insecticide carbaryl to control flea populations. Cats and dogs living at the house were dusted, and the owners were advised to continue periodic dusting of their pets.

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Editorial Note: Although plague has enzootic foci among wild rodent populations in North America from the Pacific coast eastward to Texas, Oklahoma, Kansas, and the Dakotas, human cases have been concentrated in two principal regions: 1) a southwestern area that includes New Mexico, northeastern Arizona, southern Colorado, and southern Utah and 2) a Pacific Coast region located in California, Oregon, and western Nevada (*3*). Pneumonic plague, which is rare in the United States, can spread among humans and can be rapidly fatal unless detected and treated early (*1,4*). Onset of symptoms for primary plague pneumonia usually occurs within 2–3 days after exposure (*1*).

Cases of pneumonic plague in the United States have occurred secondary to septicemic plague or as a result of direct exposure (i.e., primary) to respiratory droplets from infected cats (*5,6*). Health-care providers, especially in areas with enzootic plague, should suspect plague in persons with unexplained fever, suspected sepsis, or pneumonia with or without lymphadenopathy or a classic plague bubo (i.e., an enlarged, inflamed lymph node). Buboes may not be present in persons with septicemic or pneumonic plague (*1,4*); however, nausea, vomiting, diarrhea, and abdominal pain may be prominent features (*1*). Persons suspected to have pneumonic plague should be placed in respiratory isolation and reported immediately to public health authorities so that rapid diagnosis, environmental assessments, and control measures (including flea control, rodent control, health education, and investigation of contacts) can be initiated. Streptomycin is the treatment of choice for persons suspected to have plague; alternates include tetracycline, chloramphenicol, and sulfonamides (*1,4*).

Pneumonic Plague — Continued

Veterinarians and veterinary assistants in areas enzootic for plague are at risk for plague infection from infected cats or wild rodents. Cats with unexplained lymphadenopathy and/or oral or submandibular abscesses should be suspected of having plague, and procedures for appropriate laboratory testing should be followed. Reporting of suspected cases by veterinarians to public health officials is essential to identify and monitor animal sources of infection and to minimize the potential for transmission to humans.

This case underscores the need for manufacturers marketing rapid microbiological testing devices to ensure that identification of *Y. pestis* is possible or to advise users that isolates of *Y. pestis* will not be identified and alternative tests need to be performed. In addition, this report is a reminder that persons with pneumonic plague may travel during the incubation period or while ill to areas where plague does not occur. In such cases, plague may not be considered in the diagnosis, increasing the potential for death and transmission to other persons.

References

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Effectiveness in Disease and Injury Prevention

Update: National Breast and Cervical Cancer Early Detection Program, July 1991–July 1992

Breast cancer is the most commonly diagnosed cancer and the second leading cause of cancer deaths among women in the United States. During 1992, breast cancer will be diagnosed in 180,000 women, and an estimated 46,000 women will die from the disease (*1*). In addition, invasive cervical cancer will be diagnosed in an estimated 13,500 women and will cause approximately 4400 deaths (*1*). Many of these deaths could be prevented through routine, high-quality mammography screening and use of the Papanicolaou (Pap) test (*2,3*). This report describes cancer screening in three women who received these services through CDC's National Breast and Cervical Cancer Early Detection Program and the implementation of this comprehensive screening program for low-income women through cooperative agreements with state health agencies during July 1991–July 1992.

Case Reports

Case 1. A 56-year-old woman, who lives with her disabled husband on a low (i.e., <$600) monthly income, received a screening mammogram through a screening program sponsored by the Texas Department of Health. The mammogram was abnormal;

Cancer Early Detection — Continued

follow-up detected a 5-mm malignancy that was surgically removed by lumpectomy. Because the malignancy was detected early, she did not require chemotherapy and was advised to return for follow-up examination in July 1993.

Case 2. A 45-year-old woman did not have health insurance, was living on a limited income following a divorce, and had no source for medical care. Through the Minnesota Department of Health's screening program, she received a pelvic exam, Pap test, clinical breast examination, and mammogram; results were normal. She indicated she would return for annual exams.

Case 3. An American Indian woman with a family history of breast cancer had been unable to afford a screening mammogram. She received a screening mammogram from the California Department of Health Services screening program funded through CDC's National Breast and Cervical Cancer Early Detection Program. The results of her screening mammogram were abnormal, and she was immediately scheduled for a breast biopsy.

Analysis of Program Implementation

The Breast and Cervical Cancer Mortality Prevention Act of 1990 authorizes grants to state health agencies to make screening tests for breast and cervical cancer available to low-income women. From July 16, 1991, through July 31, 1992, $64 million was awarded to state health agencies in 12 states* through the National Breast and Cervical Cancer Early Detection Program; annual awards to each state averaged $3 million. Grantees are required to match each $3 of federal funds with $1 of state funds or in-kind funds. By law, 60% of the funds must be used to provide screening and follow-up services to women of low income. In addition, outreach programs were initiated specifically to serve older women and women in racial/ethnic minority groups.

Service delivery must begin within the first year of a 5-year project period. Other program components that must be in place by the end of the second grant year include 1) public health surveillance systems to assist in planning and evaluating program activities; 2) public information and education programs to increase use of screening services; 3) education for health professionals to improve the screening process; 4) required standards (e.g., Health Care Financing Administration [HCFA] and American College of Radiology [ACR] guidelines) to ensure high-quality screening tests; and 5) state cancer coalitions and control plans to identify statewide resources and specify program objectives.

Program services include Pap tests (for screening and follow-up), pelvic examinations, colposcopy, colposcopy-directed biopsy, screening mammography, clinical breast examination, and diagnostic mammography. Because the law prohibits federal funds to be used to pay for treatment, state funds are used to ensure that appropriate follow-up and medical treatment are provided. To assure the quality of mammography services delivered to program participants, facilities providing mammography services as part of these cooperative agreements must be accredited by the ACR.† In

*California, Colorado, Maryland, Michigan, Minnesota, Missouri, Nebraska, New Mexico, North Carolina, South Carolina, Texas, and West Virginia.

†CDC directly supports training and salaries for personnel in the radiation health offices of some grantees to monitor the quality of mammography services in the state.

Cancer Early Detection — Continued

addition, laboratories that provide cytology services are required by HCFA to comply with proposed rules from the Clinical Laboratory Improvement Amendments of 1988 (*4*).

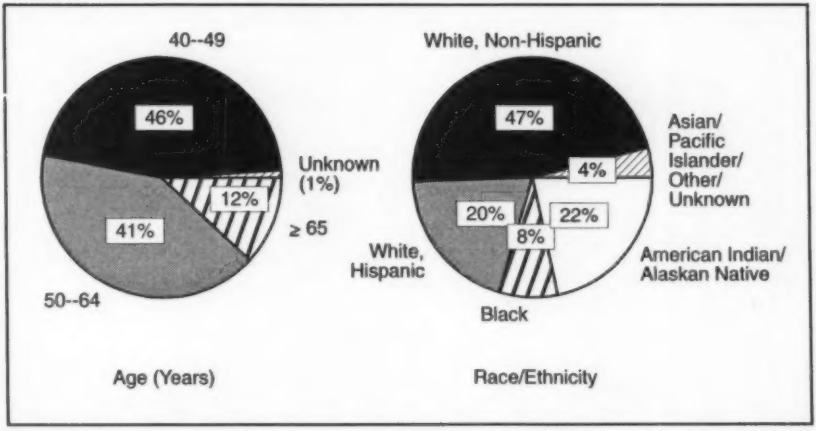
As of July 15, 1992, a total of 13,178 eligible women in eight states had been screened for breast cancer by mammography (Figure 1), and 20,733 women had been screened for cervical cancer by Pap test (Figure 2). Breast cancer was diagnosed in 49 women, and 963 women with abnormal mammogram results had been referred for diagnostic follow-up. Invasive cervical cancer was diagnosed in five women, and cervical intraepithelial neoplasia (a precancerous lesion that is curable in up to 90% of women when treated at this stage [*5*]) was diagnosed in 1701 women. In addition, 2935 women received diagnostic follow-up, including colposcopy-directed biopsy, for abnormalities.

Reported by: Epidemiology and Statistics Br and Office of Program Advancement, Div of Cancer Prevention and Control, National Center for Chronic Disease Prevention and Health Promotion, CDC.

Editorial Note: In addition to increasing the number of women screened each year for breast and cervical cancers, CDC's National Breast and Cervical Cancer Early Detection Program has 1) improved collaborative planning between states and public- and private-sector organizations; and 2) mobilized partnerships between CDC and the American Cancer Society, the American College of Physicians, the ACR, the National Medical Association (NMA), and other government organizations, such as the Indian Health Service, to develop coalitions for planning and implementing interventions.

All grantees collect and report information on screening location, patient demographic characteristics, screening results, and diagnostic procedures. These data will

FIGURE 1. Percentage of screening mammograms* provided to participants, by age and race/ethnicity — United States, National Breast and Cervical Cancer Early Detection Program,† July 1991–July 1992



*n=13,178

†Includes California, Colorado, Michigan, Minnesota, New Mexico, South Carolina, Texas, and West Virginia.

Cancer Early Detection — Continued

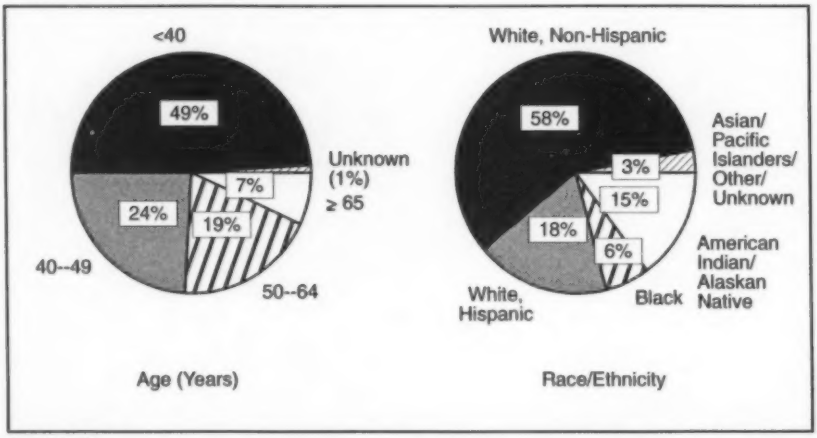
be used to help state health agencies implement, direct, evaluate, and monitor their screening programs; provide state and national legislators with data on the progress and results of the program; and direct and improve CDC's program efforts.

Participating state health departments have developed service delivery models that assist local agencies in designing screening programs based on the needs of the community and its health-care resources. In addition, state health departments and private health organizations have developed curricula to educate health-care providers about the importance and effectiveness of screening and the need to make referrals for follow-up and treatment. For example, the NMA developed a workshop, "Breast and Cervical Cancer: Recognition, Management, and Screening Strategies," that was offered at four regional sites during 1992 for NMA members and other professionals. In South Carolina and West Virginia, two state population-based breast and cervical cancer registries were initiated.

The national health objectives for the year 2000 include increasing to at least 80% the proportion of low-income women aged ≥40 years who have ever received a clinical breast examination and a mammogram and increasing to at least 95% the proportion aged ≥18 years with uterine cervix who have ever received a Pap test (objectives 16.11b and 16.12d) (*6*). Because successful breast and cervical cancer programs require a strong state health infrastructure, during 1992 CDC has provided financial and technical assistance to 18 additional state health agencies[§] to initiate

[§] Grants ranging from $250,000 to $300,000 were awarded to Alaska, Arizona, Arkansas, Connecticut, Georgia, Illinois, Indiana, Iowa, Maine, Massachusetts, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Vermont, Washington, and Wisconsin.

FIGURE 2. Percentage of Papanicolaou tests* provided to participants, by age and race/ethnicity — United States, National Breast and Cervical Cancer Early Detection Program,† July 1991–July 1992



*n=20,733

† Includes California, Colorado, Michigan, Minnesota, New Mexico, South Carolina, Texas, and West Virginia.

Cancer Early Detection — Continued

capacity-building programs in preparation for implementing comprehensive statewide breast and cervical cancer early-detection programs. In mid-1993, CDC proposes to fund three additional states for the comprehensive breast and cervical cancer control programs and to increase awards to the 12 states previously funded so additional low-income women can be screened for breast and cervical cancer.

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Current Trends

HIV Counseling and Testing Services From Public and Private Providers — United States, 1990

Human immunodeficiency virus (HIV) counseling and testing (CT) services are key elements of the national HIV-prevention strategy (*1,2*). Although the number and characteristics of persons receiving CT through publicly funded programs are monitored by CDC's CT data system (*3*), this system does not provide information about persons tested for HIV antibody by physicians in the private sector, hospitals, and other nonpublicly funded sources. This report summarizes data from CDC's 1990 National Health Interview Survey (NHIS) AIDS Supplement (*4*) regarding CT received from public and private providers.

The NHIS is an annual cross-sectional survey based on nationally representative samples of the U.S. civilian, noninstitutionalized population aged ≥18 years. The 1990 AIDS Supplement obtained information on HIV/acquired immunodeficiency syndrome (AIDS)-related knowledge and attitudes and HIV testing from a sample of 40,513 respondents (approximately 85% of eligible respondents). Voluntary tests were HIV-antibody tests that respondents had obtained by their own choice primarily to determine infection status (i.e., excludes tests required for blood donations, military induction, employment, insurance, or other purposes). In 1990, the NHIS began collecting information on source of HIV tests for all tests reported by respondents, enabling comparison of persons reporting voluntary tests from public and private providers.* Respondents were categorized as being at increased risk for HIV infection

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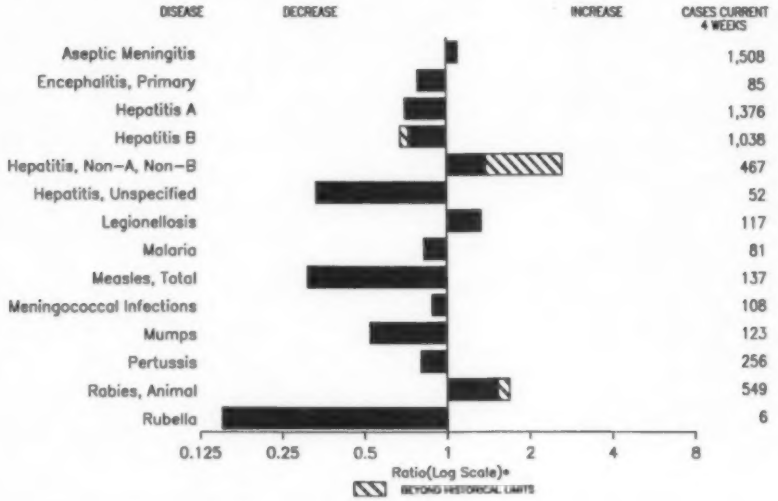
*Respondents who reported receiving tests from doctors or health maintenance organizations, hospitals or emergency rooms, or employer clinics were placed in the "private provider" category even though some tests may have been obtained from public hospitals.

FIGURE I. Notifiable disease reports, comparison of 4-week totals ending October 3, 1992, with historical data — United States



*Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary — cases of specified notifiable diseases, United States, cumulative, week ending October 3, 1992 (40th Week)

	Cum. 1992		Cum. 1992
AIDS*	35,339	Measles: imported	117
Anthrax	1	indigenous	1,962
Botulism: Foodborne	13	Plague	7
Infant	40	Poliomyelitis, Paralytic†	-
Other	1	Psittacosis	65
Brucellosis	63	Rabies, human	-
Cholera	97	Syphilis, primary & secondary	25,737
Congenital rubella syndrome	8	Syphilis, congenital, age < 1 year§	697
Diphtheria	4	Tetanus	21
Encephalitis, post-infectious	95	Toxic shock syndrome	183
Gonorrhea	371,958	Trichinosis	22
Haemophilus influenzae (invasive disease)	1,020	Tuberculosis	17,053
Hansen Disease	117	Tularemia	133
Leptospirosis	23	Typhoid fever	292
Lyme Disease	5,581	Typhus fever, tickborne (RMSF)	374

*Updated monthly; last update October 3, 1992.
†Two cases of suspected poliomyelitis have been reported in 1992; 6 of the 9 suspected cases with onset in 1991 were confirmed and 5 of the 8 suspected cases with onset in 1990 were confirmed; all were vaccine associated.
§Reports through first quarter 1992.

TABLE II. Cases of selected notifiable diseases, United States, weeks ending October 3, 1992, and October 5, 1991 (40th Week)

Reporting Area	AIDS*	Aseptic Meningitis	Encephalitis		Gonorrhea		Hepatitis (Viral), by type				Legionellosis	Lyme Disease
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1991	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992
UNITED STATES	35,339	7,496	500	95	371,958	460,065	15,571	11,946	5,484	540	1,004	5,581
NEW ENGLAND	1,118	292	22	-	8,018	11,088	458	447	87	20	47	1,254
Maine	36	29	2	-	72	125	28	19	6	-	2	4
N.H.	34	22	2	-	92	160	30	30	20	1	5	32
Vt.	23	16	4	-	21	42	8	12	11	-	2	5
Mass.	552	125	11	-	2,868	4,828	226	355	44	19	28	184
R.I.	74	100	3	-	546	946	117	18	6	-	10	219
Conn.	399	-	-	-	4,419	4,985	49	13	-	-	-	810
MID. ATLANTIC	9,276	624	19	7	41,478	54,410	1,148	1,485	271	18	267	3,128
Upstate N.Y.	1,180	319	-	-	7,839	10,002	256	380	174	8	102	1,913
N.Y. City	5,421	168	4	1	14,920	21,008	509	287	4	-	5	15
N.J.	1,603	-	-	-	5,709	8,764	172	356	67	-	27	439
Pa.	1,072	197	15	6	13,010	14,636	211	462	26	10	133	761
E.N. CENTRAL	3,106	1,144	122	27	70,652	85,762	2,143	1,783	1,027	30	266	104
Ohio	558	325	38	2	21,473	25,793	324	182	89	4	118	46
Ind.	294	158	10	11	6,924	8,722	652	593	484	10	36	30
Ill.	1,481	250	50	6	22,447	26,032	421	208	65	5	23	6
Mich.	582	385	22	8	16,790	19,162	115	458	345	11	60	22
Wis.	191	26	2	-	3,018	6,053	631	342	64	-	29	-
W.N. CENTRAL	983	408	32	6	17,268	22,591	2,053	508	218	29	61	260
Minn.	187	56	11	-	2,253	2,354	560	53	16	2	5	124
Iowa	74	60	-	3	1,200	1,547	38	29	5	3	14	17
Mo.	502	180	8	-	9,811	13,780	823	338	167	22	23	95
N. Dak.	8	1	3	-	52	65	94	1	3	1	2	1
S. Dak.	7	8	1	1	137	280	196	4	-	-	-	1
Nebr.	46	23	4	2	8	1,444	223	32	15	1	15	9
Kans.	159	80	5	-	3,807	3,121	119	51	12	-	2	13
S. ATLANTIC	7,993	1,213	130	41	113,743	137,162	999	2,002	764	91	146	486
Del.	102	46	6	-	1,371	2,200	39	177	162	1	22	177
Md.	990	152	13	-	12,195	15,055	182	312	33	5	27	125
D.C.	538	22	1	-	4,787	7,109	13	58	258	-	8	2
Va.	472	204	31	12	12,649	13,995	95	153	30	32	17	95
W. Va.	42	27	54	-	674	973	7	43	2	23	-	8
N.C.	534	133	21	-	19,006	27,375	83	331	69	-	28	53
S.C.	258	19	-	-	8,651	11,589	21	45	1	1	16	2
Ga.	1,036	161	2	-	32,973	31,277	149	246	95	-	7	3
Fla.	4,021	449	2	29	21,437	27,809	410	637	114	29	21	21
E.S. CENTRAL	1,108	364	20	-	37,053	45,763	231	1,028	1,590	2	52	54
Ky.	174	142	12	-	3,709	4,661	67	76	3	-	24	19
Tenn.	354	68	4	-	11,198	15,983	94	844	1,573	-	22	26
Ala.	391	99	3	-	13,112	13,995	38	104	13	1	6	9
Miss.	189	55	1	-	9,034	11,124	32	4	1	1	-	-
W.S. CENTRAL	3,264	926	44	5	40,345	52,041	1,511	1,435	114	120	20	96
Ark.	200	10	7	-	5,524	6,204	96	65	7	4	-	12
La.	568	51	5	1	11,436	11,848	173	144	55	3	4	5
Okla.	191	-	3	2	4,158	5,208	151	158	32	3	9	23
Tex.	2,305	865	29	2	19,227	28,781	1,091	1,068	20	110	7	56
MOUNTAIN	1,017	265	26	5	9,442	9,453	2,267	566	217	46	75	15
Mont.	17	6	1	1	88	75	77	28	27	-	9	-
Idaho	22	22	-	-	87	122	69	69	-	1	4	2
Wyo.	2	4	2	-	45	80	9	8	42	-	1	5
Colo.	322	85	8	1	3,342	2,679	629	87	71	19	16	-
N. Mex.	75	23	4	1	725	909	244	158	19	8	2	2
Ariz.	320	73	6	1	3,290	3,503	870	127	22	12	25	-
Utah	96	11	3	1	271	232	294	12	23	6	1	6
Nev.	163	41	2	-	1,594	1,953	75	77	13	-	17	-
PACIFIC	7,474	2,260	85	4	33,959	41,797	4,761	2,692	1,196	184	70	184
Wash.	429	-	1	-	2,836	3,623	584	272	118	7	10	11
Oreg.	235	-	-	-	1,281	1,580	328	212	57	9	-	-
Calif.	6,676	2,184	78	3	28,918	35,338	3,659	2,181	837	160	59	172
Alaska	13	12	6	-	522	671	46	13	3	1	-	-
Hawaii	121	64	-	1	402	585	144	14	181	7	1	1
Guam	-	2	-	-	50	12	5	1	-	6	-	1
P.R.	1,353	141	1	-	169	437	38	337	157	17	1	-
V.I.	9	-	-	-	79	309	3	6	-	-	-	-
Amer. Samoa	-	-	-	-	35	42	1	1	-	-	-	-
C.N.M.I.	-	-	-	-	61	75	2	-	-	-	-	-

N: Not notifiable U: Unavailable C.N.M.I.: Commonwealth of Northern Mariana Islands

*Updated monthly; last update October 3, 1992.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending October 3, 1992, and October 5, 1991 (40th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	Cum. 1992	1992	Cum. 1992	1992	Cum. 1992	Cum. 1991	Cum. 1992	1992	Cum. 1992	1992	Cum. 1992	Cum. 1991	1992	Cum. 1992	Cum. 1991
UNITED STATES	726	54	1,962	2	117	8,821	1,696	26	1,963	71	1,825	2,075	1	142	1,283
NEW ENGLAND	40	2	56	-	13	78	105	-	15	4	182	243	-	6	4
Maine	1	-	-	-	4	5	9	-	-	-	11	51	-	1	-
N.H.	3	-	15	-	-	-	5	-	3	2	43	18	-	-	1
Vt.	-	-	-	-	-	5	5	-	1	-	7	4	-	-	-
Mass.	22	-	16	-	5	35	41	-	3	1	85	144	-	-	2
R.I.	5	-	23	-	-	2	7	-	-	-	1	-	-	4	-
Conn.	9	2	2	-	4	31	38	-	8	1	35	26	-	1	1
MID. ATLANTIC	186	-	173	-	14	4,601	189	3	138	27	161	193	-	16	565
Upstate N.Y.	29	-	81	-	4	400	93	1	56	20	68	109	-	11	539
N.Y. City	107	-	42	-	8	1,710	17	-	12	-	9	20	-	-	2
N.J.	25	-	45	-	1	1,032	25	-	9	-	16	14	-	2	2
Pa.	25	-	5	-	1	1,459	54	2	61	7	68	50	-	3	22
E.N. CENTRAL	46	-	28	-	14	86	280	4	261	6	229	386	-	8	319
Ohio	9	-	-	-	6	3	84	-	93	-	63	80	-	-	283
Ind.	11	-	20	-	-	6	45	-	9	4	31	69	-	-	3
Ill.	12	-	6	-	4	26	66	-	81	-	24	69	-	8	7
Mich.	11	-	2	-	3	42	84	3	67	-	9	34	-	-	25
Wis.	3	-	-	-	2	9	21	1	11	2	102	114	-	-	1
W.N. CENTRAL	36	-	6	-	8	59	77	-	64	9	176	176	-	7	18
Minn.	16	-	5	-	5	27	12	-	19	-	32	71	-	-	6
Iowa	2	-	-	-	3	17	8	-	10	-	5	20	-	3	6
Mo.	11	-	-	-	-	1	25	-	27	2	78	59	-	-	5
N. Dak.	1	-	-	-	-	-	1	-	2	-	14	3	-	-	1
S. Dak.	1	-	-	-	-	-	1	-	-	1	12	4	-	-	-
Nebr.	1	-	-	-	-	1	14	-	4	2	12	9	-	-	-
Kans.	4	-	1	-	-	13	16	-	2	4	23	10	-	4	-
S. ATLANTIC	151	-	122	-	12	489	349	4	721	1	122	208	-	20	8
Del.	5	-	3	-	-	21	2	-	8	-	7	-	-	-	-
Md.	45	-	9	-	7	176	31	3	65	1	23	49	-	6	1
D.C.	9	-	-	-	-	-	3	-	5	-	1	1	-	1	1
Va.	33	-	11	-	4	30	49	-	49	-	10	20	-	-	-
W. Va.	2	-	-	-	-	-	16	1	23	-	7	9	-	1	-
N.C.	10	-	25	-	-	44	103	-	180	-	22	32	-	-	2
S.C.	1	-	29	-	-	13	22	-	49	-	10	12	-	7	-
Ga.	5	-	2	-	1	15	46	-	70	-	14	42	-	-	-
Fla.	41	-	43	-	-	190	77	-	272	-	28	43	-	5	4
E.S. CENTRAL	18	1	446	-	18	5	108	1	53	-	24	80	-	1	100
Ky.	1	1	445	-	2	1	32	-	-	-	1	-	-	-	-
Tenn.	12	-	-	-	-	3	32	-	14	-	6	33	-	1	100
Ala.	4	-	-	-	-	1	33	-	12	-	14	43	-	-	-
Miss.	1	-	1	-	16	-	11	1	27	-	3	4	-	-	-
W.S. CENTRAL	23	44	1,006	2	5	198	122	4	331	1	53	107	-	-	7
Ark.	2	-	-	-	-	5	12	-	6	-	17	8	-	-	1
La.	1	-	-	-	-	-	26	-	21	1	8	13	-	-	-
Okla.	5	-	11	-	-	-	14	-	17	-	28	34	-	-	-
Tex.	15	44	995	2[1§]	5	193	70	4	287	-	-	52	-	-	6
MOUNTAIN	24	7	24	-	8	1,198	83	1	119	10	309	280	-	8	23
Mont.	-	-	-	-	-	-	14	-	2	-	4	4	-	-	-
Idaho	1	-	-	-	-	445	8	-	3	-	39	26	-	1	-
Wyo.	-	-	1	-	-	3	2	-	-	-	-	3	-	-	-
Colo.	6	7	20	-	7	7	17	-	18	-	38	114	-	1	3
N. Mex.	4	-	1	-	1	98	8	N	N	10	84	30	-	-	2
Ariz.	8	-	2	-	-	402	19	-	67	-	110	57	-	2	2
Utah	4	-	-	-	-	224	4	-	20	-	32	24	-	2	11
Nev.	1	-	-	-	-	19	11	1	9	-	2	2	-	2	5
PACIFIC	202	-	101	-	25	2,107	403	9	261	13	589	442	1	76	239
Wash.	13	-	-	-	10	61	66	-	11	2	175	121	-	6	8
Oreg.	11	-	3	-	1	80	57	N	N	1	32	58	-	3	3
Calif.	170	-	56	-	3	1,934	266	9	229	10	337	202	-	44	217
Alaska	1	-	8	-	1	5	8	-	1	-	8	13	-	-	1
Hawaii	7	-	34	-	10	27	6	-	20	-	17	48	1	23	10
Guam	2	U	10	U	-	-	1	U	11	U	-	-	U	3	-
P.R.	-	-	339	-	-	94	3	-	1	-	11	49	-	-	1
V.I.	-	-	-	-	-	2	-	-	18	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	24	-	-	-	-	6	-	-	-	-
C.N.M.I.	-	U	1	U	1	-	-	U	-	U	1	-	U	-	-

*For measles only, imported cases include both out-of-state and international importations.
N: Not notifiable U: Unavailable [1] International [§] Out-of-state

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending October 3, 1992, and October 5, 1991 (40th Week)

Reporting Area	Syphilis (Primary & Secondary)		Toxic-Shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1992	Cum. 1991	Cum. 1992	Cum. 1992	Cum. 1991	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992
UNITED STATES	25,737	32,392	183	17,053	17,333	133	292	374	6,274
NEW ENGLAND	507	810	12	385	496	1	26	7	645
Maine	2	1	1	19	30	-	-	-	-
N.H.	38	12	8	14	5	-	1	-	6
Vt.	1	1	-	6	7	-	-	-	21
Mass.	257	383	4	205	252	1	16	3	18
R.I.	24	44	1	34	75	-	-	2	-
Conn.	185	369	-	107	127	-	9	2	600
MID. ATLANTIC	3,751	5,581	22	3,867	3,989	-	76	32	1,919
Upstate N.Y.	251	540	8	321	353	-	8	15	1,098
N.Y. City	2,032	2,787	-	2,366	2,431	-	34	4	16
N.J.	445	966	-	702	657	-	21	4	560
Pa.	1,023	1,288	14	478	548	-	13	9	245
E.N. CENTRAL	3,815	3,957	47	1,693	1,704	1	35	28	126
Ohio	621	507	15	248	260	-	6	15	13
Ind.	238	142	10	137	169	-	1	6	17
Ill.	1,677	1,842	5	861	885	1	24	2	27
Mich.	765	1,006	17	386	309	-	3	2	14
Wis.	516	460	-	61	81	-	1	3	55
W.N. CENTRAL	1,061	606	32	388	399	54	6	27	915
Minn.	72	53	7	101	75	-	2	-	143
Iowa	36	56	5	32	54	-	1	2	148
Mo.	790	413	7	178	177	39	2	20	25
N. Dak.	1	1	2	4	6	-	-	-	129
S. Dak.	-	1	-	19	28	11	-	1	113
Nebr.	1	12	4	16	15	2	1	-	12
Kans.	161	70	7	38	44	2	-	4	345
S. ATLANTIC	7,037	9,488	22	3,265	3,263	5	27	107	1,394
Del.	165	134	3	40	24	-	-	10	164
Md.	498	753	2	284	284	1	7	14	423
D.C.	305	577	-	89	144	-	1	1	14
Va.	511	724	3	271	267	2	2	17	259
W. Va.	15	22	1	73	53	-	1	6	34
N.C.	1,855	1,526	3	441	435	1	-	42	36
S.C.	965	1,194	1	319	328	-	2	7	138
Ga.	1,412	2,352	5	674	654	1	-	7	285
Fla.	1,311	2,206	4	1,074	1,074	-	14	3	41
E.S. CENTRAL	3,331	3,571	3	1,068	1,132	8	3	61	151
Ky.	130	80	-	293	271	1	-	6	56
Tenn.	862	1,145	3	284	322	7	-	52	33
Ala.	1,189	1,370	-	322	306	-	-	3	61
Miss.	1,150	976	-	169	233	-	3	-	1
W.S. CENTRAL	4,649	5,745	2	2,009	2,119	34	13	96	592
Ark.	646	478	-	156	178	23	-	15	38
La.	1,941	2,041	-	155	175	-	1	-	7
Okla.	273	150	1	118	137	11	-	80	275
Tex.	1,789	3,076	1	1,580	1,629	-	12	1	272
MOUNTAIN	277	456	15	430	478	24	3	10	203
Mont.	7	6	1	-	6	12	-	3	20
Idaho	1	4	1	18	6	-	1	1	3
Wyo.	3	8	-	-	5	1	-	4	74
Colo.	40	68	6	30	69	4	2	-	20
N. Mex.	36	26	1	64	59	4	-	1	7
Ariz.	142	289	2	203	239	-	-	-	61
Utah	7	6	4	60	40	2	-	1	5
Nev.	41	49	-	55	54	1	-	-	13
PACIFIC	1,309	2,178	28	3,948	3,753	6	103	6	329
Wash.	65	145	-	224	222	2	7	-	-
Oreg.	34	65	1	104	91	-	-	3	2
Calif.	1,197	1,959	27	3,383	3,234	2	90	3	314
Alaska	5	4	-	43	54	2	-	-	13
Hawaii	8	5	-	194	152	-	6	-	-
Guam	3	1	-	58	6	-	3	-	-
P.R.	279	332	-	200	176	-	1	-	31
V.I.	54	87	-	3	2	-	-	-	-
Amer. Samoa	-	-	-	-	3	-	1	-	-
C.N.M.I.	5	3	-	48	16	-	1	-	-

U: Unavailable

TABLE III. Deaths in 121 U.S. cities,* week ending October 3, 1992 (40th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	645	453	105	55	19	13	43
Boston, Mass.	169	103	36	22	2	6	17
Bridgeport, Conn.	47	40	3	3	-	1	3
Cambridge, Mass.	24	19	5	-	-	-	6
Fall River, Mass.	26	22	4	-	-	-	2
Hartford, Conn.	58	36	13	5	3	1	-
Lowell, Mass.	25	19	2	4	-	-	1
Lynn, Mass.	22	19	2	1	-	-	1
New Bedford, Mass.	33	27	1	2	3	-	2
New Haven, Conn.	50	31	10	6	2	1	3
Providence, R.I.	38	31	4	3	-	-	-
Somerville, Mass.	9	7	1	-	-	1	-
Springfield, Mass.	62	34	13	7	7	1	3
Waterbury, Conn.	28	25	2	-	1	-	2
Worcester, Mass.	54	40	9	2	1	2	3
MID. ATLANTIC	2,180	1,413	408	260	49	50	76
Albany, N.Y.	32	20	8	4	-	-	3
Allentown, Pa.	18	14	3	1	-	-	3
Buffalo, N.Y.	100	71	20	5	3	1	3
Camden, N.J.	39	17	8	8	3	3	1
Elizabeth, N.J.	19	12	5	2	-	-	-
Erie, Pa.§	41	27	12	1	1	-	1
Jersey City, N.J.	53	35	7	11	-	-	2
New York City, N.Y.	1,282	812	247	171	29	23	30
Newark, N.J.	70	28	16	18	4	4	10
*Paterson, N.J.	U	U	U	U	U	U	U
*Philadelphia, Pa.	U	U	U	U	U	U	U
Pittsburgh, Pa.§	46	32	6	4	-	4	2
Reading, Pa.	21	18	2	1	-	-	2
Rochester, N.Y.	140	104	13	12	2	9	8
Schenectady, N.Y.	33	29	4	-	-	-	3
Scranton, Pa.§	29	25	2	1	1	-	2
Syracuse, N.Y.	87	62	15	5	4	1	1
Trenton, N.J.	37	22	3	9	1	2	4
Utica, N.Y.	17	12	5	-	-	-	-
Yonkers, N.Y.	116	73	32	7	1	3	1
E.N. CENTRAL	1,987	1,205	388	230	118	66	70
Akron, Ohio	54	43	6	4	-	1	-
Canton, Ohio	29	20	7	2	-	-	2
Chicago, Ill.	414	155	82	102	61	14	10
Cincinnati, Ohio	115	74	25	9	3	4	9
Cleveland, Ohio	134	86	24	12	6	4	1
Columbus, Ohio	145	92	31	11	5	6	2
Dayton, Ohio	100	63	22	9	4	2	9
Detroit, Mich.	230	124	41	37	17	11	3
Evansville, Ind.	35	24	6	2	2	1	1
Fort Wayne, Ind.	71	50	13	3	3	2	4
Gary, Ind.	19	9	5	3	2	-	-
Grand Rapids, Mich.	58	41	8	6	2	1	2
Indianapolis, Ind.	101	66	18	7	2	8	4
Madison, Wis.	48	28	13	3	1	3	-
Milwaukee, Wis.	114	85	22	5	-	2	2
Peoria, Ill.	50	36	9	1	-	4	3
Rockford, Ill.	53	44	6	1	-	2	4
South Bend, Ind.	37	29	5	1	2	-	4
Toledo, Ohio	112	83	19	6	4	1	6
Youngstown, Ohio	68	53	6	7	2	-	4
W.N. CENTRAL	762	524	141	64	18	15	27
Des Moines, Iowa	118	95	13	6	2	2	4
Duluth, Minn.	35	25	7	2	1	-	1
Kansas City, Kans.	14	8	4	2	-	-	-
Kansas City, Mo.	100	62	21	6	6	3	4
Lincoln, Nebr.	32	22	5	4	1	-	2
Minneapolis, Minn.	170	116	35	13	3	3	11
Omaha, Nebr.	62	45	11	6	-	-	2
St. Louis, Mo.	115	71	23	14	1	6	-
St. Paul, Minn.	56	41	11	3	1	-	3
Wichita, Kans.	80	39	11	6	3	1	-
S. ATLANTIC	1,266	710	272	184	51	49	58
Atlanta, Ga.	160	86	32	28	6	8	6
Baltimore, Md.	241	143	44	38	9	7	22
Charlotte, N.C.	73	37	18	12	1	5	3
Jacksonville, Fla.	104	62	19	15	4	4	4
Miami, Fla.	123	71	25	21	5	1	1
Norfolk, Va.	58	32	9	8	5	4	2
Richmond, Va.	53	32	16	1	3	1	1
Savannah, Ga.	58	28	16	10	2	2	4
St. Petersburg, Fla.	59	44	6	7	1	1	1
Tampa, Fla.	148	90	41	10	3	4	9
Washington, D.C.	172	74	41	33	12	12	5
Wilmington, Del.	17	11	5	1	-	-	-
E.S. CENTRAL	796	523	146	70	29	28	39
Birmingham, Ala.	111	65	26	11	3	6	1
Chattanooga, Tenn.	68	47	15	5	1	-	-
Knoxville, Tenn.	85	57	21	4	3	-	4
Lexington, Ky.	57	38	9	8	1	1	4
Memphis, Tenn.	210	127	38	16	12	17	16
Mobile, Ala.	74	58	4	6	5	1	3
Montgomery, Ala.	47	32	7	6	1	1	-
Nashville, Tenn.	144	99	26	14	3	2	11
W.S. CENTRAL	1,245	720	281	154	57	32	79
Austin, Tex.	54	27	17	6	4	-	1
Baton Rouge, La.	62	36	13	9	2	2	-
Corpus Christi, Tex.	52	41	5	3	2	1	3
Dallas, Tex.	222	129	43	33	7	10	5
El Paso, Tex.	51	37	6	5	2	1	2
Ft. Worth, Tex.	81	55	12	8	4	2	2
Houston, Tex.	289	141	80	47	11	9	42
Little Rock, Ark.	53	35	11	6	1	-	4
New Orleans, La.	72	38	16	14	6	-	-
San Antonio, Tex.	174	105	39	15	9	6	10
Shreveport, La.	49	26	16	3	4	-	5
Tulsa, Okla.	86	52	23	5	5	1	5
MOUNTAIN	705	473	128	65	18	21	44
Albuquerque, N.M.	89	58	11	13	5	2	2
Colo. Springs, Colo.	33	25	6	2	-	-	3
Denver, Colo.	104	75	12	11	1	5	10
Las Vegas, Nev.	116	73	32	7	1	3	1
Ogden, Utah	24	19	1	4	-	-	3
Phoenix, Ariz.	105	64	22	9	6	4	5
Pueblo, Colo.	24	18	6	-	-	-	4
Salt Lake City, Utah	71	49	10	6	2	4	11
Tucson, Ariz.	139	92	28	13	3	3	5
PACIFIC	1,448	957	276	128	44	44	70
Berkeley, Calif.	20	12	6	1	-	1	-
Fresno, Calif.	82	54	19	4	3	2	8
Glendale, Calif.	17	16	1	-	-	-	1
Honolulu, Hawaii	84	60	17	3	2	2	6
Long Beach, Calif.	U	U	U	U	U	U	U
Los Angeles, Calif.	253	154	49	36	12	1	7
Pasadena, Calif.	27	18	7	2	2	-	-
Portland, Oreg.	110	75	19	3	6	7	4
Sacramento, Calif.	117	77	25	9	3	3	11
San Diego, Calif.	121	77	14	18	2	10	13
San Francisco, Calif.	140	82	30	20	5	3	-
San Jose, Calif.	142	96	36	7	-	3	8
Santa Cruz, Calif.	35	27	6	1	-	1	3
Seattle, Wash.	157	107	21	13	7	9	2
Spokane, Wash.	69	47	13	7	1	1	2
Tacoma, Wash.	74	57	13	2	1	1	5
TOTAL	11,034¶	6,978	2,125	1,208	403	318	506

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

†Pneumonia and influenza.

§Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶Total includes unknown ages.

U: Unavailable.

HIV Counseling and Testing — Continued

based on self-report of *any* of the following (without stating which one) since 1977: 1) receiving clotting factor concentrates for hemophilia, 2) engaging in male sexual activity with other males, 3) using illegal drugs by needle, 4) immigrating to the United States from a country where HIV infection is endemic, 5) engaging in sexual activity with persons in categories 1–4, and 6) exchanging sex for money or drugs. Standard errors and significance tests were evaluated using methods that take into account the complex sample design (*5*). All differences noted in the text are significant at the $p<0.05$ level.

In 1990, nearly one fourth of respondents (23.8%; 95% confidence interval [CI]=23.1–24.4) reported having been tested at least once; 15.9% (95% CI=15.4–16.4) were tested for blood donation, and 5.6% (95% CI=5.3–6.0) were tested for other required purposes. Of the respondents, 4.8% (95% CI=4.6–5.1) (representing an estimated 8.8 million adults) had obtained a voluntary HIV-antibody test to determine their infection status. For persons at increased risk (995 [2%] respondents), 45.0% (95% CI=41.2–48.8) reported having been tested at least once; 25.1% (95% CI=21.8–28.5) had received a voluntary test.

Private-sector providers were twice as likely to have been the source of the most recent voluntary test (Table 1). Among public providers, public health departments and AIDS clinic/CT sites were the most frequent sources reported (12.4 and 3.7%, respectively) (Table 2).

A higher percentage of persons who were at increased risk used public programs for voluntary HIV-antibody testing than did those at no increased risk (Figure 1). In addition, a higher percentage of non-Hispanic blacks and Hispanic adults used public programs than did non-Hispanic whites; a higher percentage of persons below the poverty level and persons who had fewer years of education used public programs than did those above the poverty level and those with more years of education (Figure 1).

Among all persons obtaining voluntary tests, 45.4% reported receiving pretest counseling and 30.8% reported receiving posttest counseling (Table 3). Rates of pre- and posttest counseling were higher from public sources (58.3% and 43.2%, respec-

TABLE 1. Estimated number of persons who have had a voluntary HIV-antibody test ever and in 1989 — United States, National Health Interview Survey (NHIS), 1990, and CDC counseling and testing (CT) data base, 1989

Time period and provider of test (source)	Estimated no. (thousands)	(95% CI*)
Ever had a voluntary test (NHIS)		
Source of last test		
Public	2765	(2561–2968)
Private	5992	(5646–6338)
Total	**8756**	**(8285–9228)**
Had a voluntary test in 1989		
Source of test		
Public (NHIS)	1034	(900–1169)
(CDC CT data†)	*(1015)*	—
Private (NHIS)	1913	(1712–2114)
Total	**2947**	**(2701–3193)**

*Confidence interval.
†Total number of HIV-antibody tests in 1989, CDC CT data base.

HIV Counseling and Testing — Continued

tively) and among persons at increased risk (65.6% and 53.0%). Rates of counseling were also higher for blacks and persons below the poverty level.

Reported by: Behavioral and Prevention Research Br, Div of Sexually Transmitted Diseases and HIV Prevention, National Center for Prevention Svcs; Illness and Disability Statistics Br, Div of Health Interview Statistics, National Center for Health Statistics, CDC.

Editorial Note: Important purposes of HIV CT are to assist in promoting behavior changes that will reduce the risk for transmission (*6*) and to detect HIV infection in persons so that their need for medical treatment and other services can be assessed (*1,2*). Previous reports have provided information about tests performed in publicly funded sites that report data to CDC (*7*). Although questions regarding AIDS have been included as a special supplement to the NHIS since 1987, the 1990 NHIS is the first survey in which data on the source of HIV-antibody testing were obtained, enabling examination of national estimates of respondent-reported testing experience in both public and private settings.

Because rates of CT derived from the NHIS are based on respondents' self-reports of their experience, they may be subject to recall bias or other reporting errors. For example, differing rates of counseling from the NHIS and from CDC program data may reflect differences in activities the NHIS respondents considered to be counseling and those activities reported by programs. Of NHIS respondents reporting voluntary tests from public providers, 58.3% reported receiving pretest counseling; in comparison, the CDC CT data system indicated that nearly all persons received pretest counseling.

TABLE 2. Percentage of respondents, by place of last test, who have ever had a voluntary HIV-antibody test — United States, National Health Interview Survey, 1990

Source	All persons aged ≥18 years* %	(95% CI†)	Persons in increased risk category§ %	(95% CI)
Private				
Doctor/Health maintenance organization	41.1	(38.4–43.8)	35.5	(28.1–42.9)
Hospital/Emergency room	22.8	(20.6–24.9)	18.3	(12.4–24.1)
Employer clinic	2.8	(2.0– 3.5)	0.9	(-0.4– 2.1)
Total	**66.7**	**(64.5–68.8)**	**54.6**	**(47.3–61.9)**
Public				
Public health department	12.4	(11.0–13.8)	23.5	(17.2–29.7)
AIDS clinic/counseling and testing site	3.7	(2.8– 4.7)	7.2	(3.1–11.2)
Family planning clinic	1.7	(1.0– 2.4)	0.3	(-0.3– 0.8)
Military site	1.1	(0.5– 1.6)	0.3	(-0.3– 0.8)
Prenatal clinic	0.5	(0.1– 0.8)	0.2	(-0.2– 0.6)
Drug treatment clinic	0.4	(0.1– 0.6)	3.1	(0.9– 5.4)
Sexually transmitted diseases clinic	0.3	(0.1– 0.4)	0.3	(-0.3– 0.8)
Other clinic	7.5	(6.1– 8.9)	7.7	(4.3–11.1)
Other	5.5	(4.4– 6.6)	2.9	(0.4– 5.4)
Total	**33.1**	**(30.9–35.2)**	**45.4**	**(38.1–52.7)**
Refused/Unknown/ Don't know	**0.3**	**(0 – 0.5)**	**0**	
Total	**100.0**		**100.0**	

* n=2061.
† Confidence interval.
§ n=265.

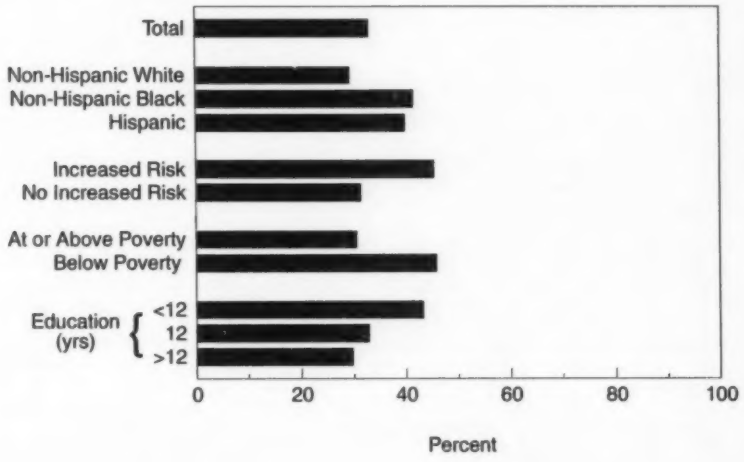
HIV Counseling and Testing — Continued

The estimated number of persons who reported receiving publicly funded HIV-antibody tests in the 1990 NHIS is consistent with the number of publicly funded tests reported to the CDC CT data system. In addition, the NHIS finding that about two thirds of tests are obtained from private-sector sources is consistent with data from Oregon, which are from a required HIV-antibody test reporting system in that state (*8*).

The NHIS estimate of adults having one or more HIV risk factors (2%) is low when compared with findings from other national surveys (*9,10*). Because the NHIS is a general health survey conducted by personal interviews in the household, the prevalence of some sensitive behaviors associated with HIV infection may be underreported. In addition, the NHIS represents persons living in households, which may exclude disproportionate numbers of the homeless or runaway youth or persons using illegal drugs. Despite these limitations, in the NHIS data, self-reported risk is strongly associated with receiving CT.

Public programs must continue providing CT and other services to their clients. In addition, because most voluntary tests are performed in private settings, physicians in the private sector and hospitals also should be encouraged to provide appropriate services to persons receiving HIV tests, including pretest and posttest counseling; to refer infected persons for medical treatment, partner notification, and other services; and to remain current regarding appropriate CT messages.

FIGURE 1. Percentage of respondents who obtained test from public providers among all respondents having a voluntary HIV-antibody test, by selected characteristics — United States, National Health Interview Survey, 1990



HIV Counseling and Testing — Continued

TABLE 3. Number and percentage of respondents who have ever had a voluntary HIV-antibody test who received pretest and posttest counseling, by selected characteristics — United States, National Health Interview Survey, 1990

Category	No.	Pretest counseling %	Pretest counseling (95% CI*)	Posttest counseling %	Posttest counseling (95% CI)
Race/Ethnicity					
White	1408	42.4	(39.2–45.7)	26.8	(24.2–29.5)
Black	398	57.4	(51.2–63.7)	42.7	(37.1–48.3)
Hispanic	202	46.1	(38.6–53.5)	36.8	(29.7–43.9)
Other	53	42.7	(31.4–54.0)	32.2	(18.9–45.5)
Increased risk†					
Yes	265	65.6	(59.1–72.2)	53.0	(47.0–59.0)
No	1783	42.9	(39.7–46.1)	27.8	(25.5–30.2)
Test in public facility					
Yes	712	58.3	(53.4–63.1)	43.2	(38.8–47.6)
No	1349	39.0	(35.7–42.4)	24.6	(21.9–27.3)
Poverty level					
At or above	1578	44.4	(41.0–47.8)	28.7	(29.5–31.5)
Below	337	52.5	(45.4–59.5)	41.1	(35.2–46.9)
Unknown	146	42.5	(33.0–51.9)	34.0	(25.6–42.3)
Total	**2061**	**45.4**	**(42.4–48.4)**	**30.8**	**(28.4–33.1)**

* Confidence interval.

† Respondents were categorized as being at increased risk for HIV infection based on self-report of any of the following (without stating which one) since 1977: 1) receiving clotting factor concentrates for hemophilia, 2) engaging in male sexual activity with other males, 3) using illegal drugs by needle, 4) immigrating to the United States from a country where HIV infection is endemic, 5) engaging in sexual activity with persons in categories 1–4, and 6) exchanging sex for money or drugs. Numbers do not add to total because of refused/don't know/unknown responses.

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Surveillance Summaries

Publication of *CDC Surveillance Summaries*

Since 1983, CDC has published the *CDC Surveillance Summaries* under separate cover as part of the *MMWR* series. Each report published in the *CDC surveillance Summaries* focuses on public health surveillance; surveillance findings are reported for a broad range of risk factors and health conditions.

Summaries for each of the reports published in the most recent (August 28, 1992) issue of the *CDC Surveillance Summaries* (*1*) are provided below; this is the second issue this year focusing on international topics in public health surveillance. All subscribers to *MMWR* receive the *CDC Surveillance Summaries*, as well as the *MMWR Recommendations and Reports*, as part of their subscriptions.

ENVIRONMENTAL RESPIRATORY DISEASE SURVEILLANCE: A HUNGARIAN EXAMPLE

In October 1989, the Hungarian National Institute of Hygiene initiated the Children's Acute Respiratory Morbidity Surveillance System to assess the association between nine reportable respiratory diseases and air pollution. The weekly number of physician-diagnosed, reportable respiratory diseases among four age groups of children (<1, 1–2, 3–5, and 6–14 years) was tabulated for Sopron, a city with 60,000 residents. The proportion of diseases were calculated that occurred during weeks with low, moderate, and high sulfur dioxide (SO_2) and nitrogen dioxide (NO_2) concentrations. The weekly averages of the 24-hour median SO_2 concentrations were divided into thirds at ≤17.6, >17.6 to ≤26.3, and >26.3 μg/m^3 (range=0.9–79.6 μg/m^3), and the NO_2 concentrations at ≤29.8, >29.8 to ≤44.1, and >44.1 μg/m^3 (range=4.2–90.1 μg/m^3). During 1990, 11,474 respiratory disease cases occurred among the 4020 children <15 years old living in Sopron. The two most frequently reported disease categories were rhinitis/tonsillitis/pharyngitis (71.5%) and acute bronchitis (8.5%). Sixty-seven percent of pneumonia cases occurred when SO_2 concentrations were highest. No association was found between NO_2 and respiratory diseases. The Children's Acute Respiratory Morbidity Surveillance System may better characterize which groups of children develop which respiratory diseases following exposure to air pollution.

Authors: *Peter Rudnai, MD, Bela Johan National Institute of Hygiene, Budapest, Hungary. Mary M. Agocs, MD, Ruth A. Etzel, MD, PhD, Division of Environmental Hazards and Health Effects, National Center for Environmental Health and Injury Control, CDC.*

SURVEILLANCE IN EVACUATION CAMPS AFTER THE ERUPTION OF MT. PINATUBO, PHILIPPINES

To obtain accurate, timely data on the health status of refugees in evacuation camps after the eruption of the Mt. Pinatubo volcano, the Philippine Department of Health (DOH) conducted a survey on the health needs of the evacuees and established disease surveillance in each camp. Survey of the camps revealed that sources of potable water, sanitary means of waste disposal, and shelters were inadequate. Disease surveillance showed that measles, acute respiratory infections, and diarrhea were the most important problems. Surveillance detected outbreaks of measles and an outbreak of vomiting and diarrhea in the camps. Deaths, primarily caused by diarrhea,

Surveillance Summaries — Continued

measles, and respiratory infections, totaled 277 in the first 10 weeks. Death rates peaked in the seventh week, when a death rate of 26/10,000 occurred among the Aetas, a tribe evacuated from the slopes of the volcano. The surveys guided the DOH in allocating supplies and medicine, while disease surveillance enabled disaster managers to monitor the effectiveness of health programs, identify high-risk groups, and respond optimally to the situation.

Authors: *Maria Ruth S. Surmieda, MD, Ilya P. Abellanosa, MD, Florante P. Magboo, MD, Rio L. Magpantay, MD, Maria Luz G. Pascual, MD, Enrique A. Tayag, MD, Grace Abad-Viola, MD, Franklin C. Diza, MD, Juan M. Lopez, MD, Mary Elizabeth G. Miranda, MD, Maria Concepcion R. Roces, MD, Robert A. Sadang, MD, Nancy S. Zacarias, MD, Manual M. Dayrit, MD, MSc, Mark E. White, MD, Field Epidemiology Training Program, Philippine Department of Health.*

MEASLES—NEW ZEALAND, 1991

In New Zealand, where measles is not a reportable disease, an increase in the number of suspected cases of measles was first noticed in mid-February 1991. A surveillance system was established through the 14 area health boards to enable timely monitoring of the magnitude and extent of the epidemic. A total of 9239 cases that met the clinical case definition for measles was reported to the New Zealand Communicable Disease Center from July through December 1991. The actual number of cases may have been three to four times greater. The first vaccination coverage survey ever conducted in New Zealand, which was completed in July 1991, showed that only 61% of children 16 months of age in the Hawke's Bay Area had received measles vaccine. A nationwide vaccination survey is under way to evaluate the level of vaccination coverage among preschool-aged children. Ongoing surveillance is required to provide timely, representative information to guide decision-making.

Authors: *Yvonne Galloway, New Zealand Communicable Disease Centre. Paul Stehr-Green, DrPH, National Center for Prevention Services, CDC.*

HEALTH INFORMATION SYSTEM DEVELOPMENT IN TOGO, WEST AFRICA

Since 1988, the Ministry of Health (MOH) of Togo, with technical assistance from CDC, has systematically adapted and strengthened its health information system (HIS) to enable improved monitoring of trends in diseases. The previous system had been hampered by complicated, lengthy reporting forms; incomplete and delayed receipt of reporting forms; absence of mortality reporting; slow, cumbersome manual compilation and analysis methods; and lack of standard case definitions. To simplify the adaptation process, the system was divided into three main activities: data collection, data compilation and analysis, and dissemination of reports and follow-up action. Public health authorities in Togo have built on existing strengths and successfully adapted the HIS to focus on national morbidity and mortality prevention priorities.

Authors: *T. Karsa, MD, Epidemiology Division, Ministry of Health, Togo, West Africa. Michael J. Toole, MD, Brian Fitzgibbon, Kelly Bussell, International Health Program Office, CDC.*

SURVEILLANCE OF SEXUAL EXPERIENCE AND USE OF CONTRACEPTION AMONG YOUNG ADULTS IN LATIN AMERICA

Although a formal public health surveillance system has not yet been established in Latin America to document the attitudes of young people toward sex education, sexual activity, and contraception and their behaviors in these areas, representative data are available from 12 household-based Young Adult Reproductive Health Sur-

Surveillance Summaries — Continued

veys conducted in seven countries since 1985. The surveys indicate that the rate of sexual experience before marriage or consensual union for males is much higher than that for females, and first sexual experience occurs at a younger age for males than for females. However, from 34% to 90% of females 20–24 years of age report having had premarital sexual relations. No more than 41% of females and 31% of males report that they or their partner used contraception at first sexual experience. Less than one-third of both young men and young women could identify the most fertile period during the menstrual cycle. The results of such surveys have provided program officials and policymakers with data to plan, implement, and evaluate interventions targeted for young adults.

Author: *Leo Morris, PhD, Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.*

Reference

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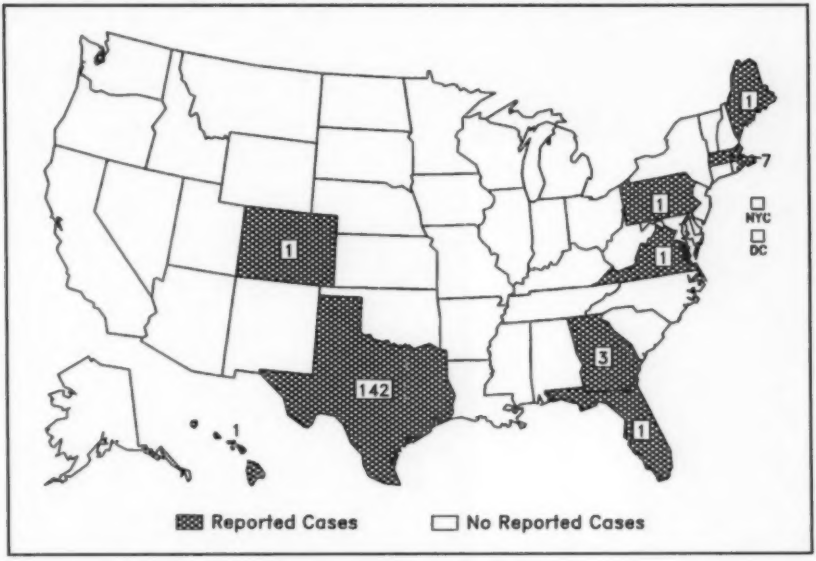
Reported cases of measles, by state — United States, weeks 36–39, 1992



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